

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-24 are now pending in this application. Claims 8-14 and 16-20 have been withdrawn from consideration.

Response to Interview Summary

The Applicant wishes to thank the Examiner for conducting the interview of September 25, 2008. In accordance with the request in the Interview Summary that the Applicant file a statement of substance of the interview, the Applicant notes that Figure 4 was only presented as an example of the claimed duct fan, not to demonstrate that the claims read and stress the embodiment of Figure 4. Otherwise the Interview Summary accurately summarizes the interview.

Rejection under 35 U.S.C. § 112

Claims 1-7, 15, and 21-24 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicant respectfully submits that the amendments to the claims render this rejection moot. Reconsideration and withdrawal of this rejection is respectfully requested.

Rejection under 35 U.S.C. § 103

Claims 1-7, 15, and 21-24 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 2,394,517 to Ingalls (hereafter "Ingalls") in view of U.S. Patent No. 3,229,896 to Levy (hereafter "Levy"). This rejection is respectfully traversed.

According to the Office, Ingalls discloses a totally enclosed motor 1 mounted within a duct section 2, with the device including a fan 3, a centrifugal fan 14 secured to a shaft 13 inside of the motor 1, and a stator frame 8 with radial vanes 16. See col. 2, lines 14-46.

Applicant's note Ingalls' statement discloses that a totally enclosed motor 1 is advantageous

to prevent accumulation of foreign material in the motor. See col. 1, lines 23-28. To cool the motor 1, centrifugal fan 14 causes air within the motor housing to circulate from the motor to cavities 17 within vanes 16, that dissipate heat from the air, and then back to the motor. See col. 2, line 52, to col. 3, line 16. Ingalls also discloses ducts 24, 27 but these are for cooling external covers of the motor near bearings. See col. 3, lines 49-60.

As properly acknowledged by the Office on page 4 of the Office Action, Ingalls does not teach or suggest that a vane 16 includes an air-discharge duct configured to discharge air from a chamber housing a cooling impeller to outside of the duct, as recited in claim 1.

According to the Office, Levy discloses a fan with a motor housing 22 supported within a fan housing 12 by a plurality of vanes 54. See col. 2, lines 61-67. A cooling path for a fan motor is provided by a pipe 52 that introduces air from outside of a duct that the fan is located in, and by a pair of outlet conduits 86, 88. See col. 3, lines 26-68. Levy states that fan designs with enclosed motors have disadvantages due to high operating temperatures, large size, and corrosion of external surfaces. See col. 1, lines 22-36. Levy also states that Levy's design cools a motor with air that is free of contamination. See col. 1, lines 8-12.

However, although Levy appears to disclose an inlet pipe 52 and outlets conduits 86, 88, Levy does not disclose or suggest that one of the vanes 54 disclosed by Levy includes such an outlet conduit 86, 88 or inlet pipe 52 because Levy discloses these as separate structures. The inlet pipe 52 and outlet conduits 86, 88 of Levy are not vanes, such as the vanes 54 disclosed by Levy. Nor does Levy disclose or suggest that the vanes 54 can include inlet pipes or outlet conduits. Thus, Levy does not disclose that one of the vanes 54 includes an air-discharge duct, as recited in claim 1, and the combination of Ingalls and Levy does not disclose or suggest all of the features of claim 1.

Furthermore, a proposed modification cannot change the principle of operation of a reference. See M.P.E.P. § 2143.01, Part VI. In particular, it would not have been obvious to modify the design of Ingalls by the teachings of Levy because this would destroy the principle of operation of the device of Ingalls. Although Levy teaches that Levy's design is advantageous over totally enclosed motor designs and that Levy's design cools a motor with air free of contamination, Ingalls discloses a design with a particular pattern of internal air circulation with heat dissipation via vanes 16 to cool the motor 1 of Ingalls. Modifying the cooling vanes 16 of Ingalls (if the teachings of Levy supported such a modification) to

provide air-discharge and air-supply ducts within the vanes would destroy the pattern of air circulation and heat transfer function performed by the device of Ingalls. Thus, one of ordinary skill in the art would not have made the combination argued by the Office.

For at least the reasons discussed above, the combination of Ingalls and Levy does not disclose or suggest all of the features of claim 1 and it would not have been obvious to one of ordinary skill to combine the teachings of Ingalls and Levy. Reconsideration and withdrawal of this rejection is respectfully requested.

CONCLUSION

Applicant submits that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By PDS

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